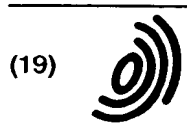


B12



Europäisches Patentamt
European Patent Office
Office européen des brevets



(11) EP 0 772 136 A3

(12) EUROPEAN PATENT APPLICATION

(88) Date of publication A3:
05.11.1997 Bulletin 1997/45

(51) Int. Cl.⁶: G06F 17/00, G06F 17/30,
G06F 9/46, G06F 11/14

(43) Date of publication A2:
07.05.1997 Bulletin 1997/19

(21) Application number: 96203054.0

(22) Date of filing: 04.11.1996

(84) Designated Contracting States:
BE DE FR IE IT

(30) Priority: 02.11.1995 US 552058

(71) Applicant: Informix Software, Inc.
Menlo Park, California 94025 (US)

(72) Inventors:
• Bortvedt, Gerald K.
Beaverton, Oregon 97006 (US)

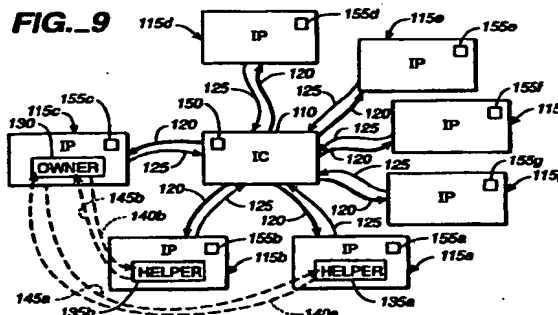
• Gerber, Robert H.
Dumar 97229 (US)

(74) Representative: Hall, Robert Leonard et al
Dibb Lupton Alsop,
Fountain Precinct,
Balm Green
Sheffield S1 1RZ (GB)

(54) Method of commitment in a distributed database transaction

(57) A method for committing a distributed transaction in a distributed database system. The database system includes an interval coordinator, a plurality of database server programs, called coservers, and at least one transaction log. More than one coserver can operate on a single computer or node, and the coservers could share a transaction log. The interval coordinator sends each coserver a succession of interval messages, and each coserver flushes its associated transaction log to non-volatile storage in response. After flushing its transaction log, each coserver transmits a closure message to the interval coordinator. The coservers maintain a state which identifies the most recently received interval message;

Each distributed transaction includes an owner and a non-owner, or helper. For a transaction, the owner transmits a request message to the helper identifying an operation in the distributed transaction for the coserver to execute. Upon execution of the operation, the coserver transmits a completion message to the owner with a tag identifying the most recently received interval message. After receiving said completion message, the owner transmits an eligibility message for the transaction to the interval coordinator. Then the interval coordinator writes a commit state for the transaction to stable storage. Then the interval coordinator sends the owner and helper a commit message for the transaction.



EP 0 772 136 A3



European Patent
Office

EUROPEAN SEARCH REPORT

Application Number
EP 96 20 3054

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
A	EP 0 567 999 A (ORACLE CORP) 3 November 1993 • abstract • • page 2, line 55 - page 3, line 15 * • page 5, line 48 - page 8, line 45 * ---	1,5-7,9	G06F17/00 G06F17/30 G06F9/46 G06F11/14
A	EP 0 578 406 A (DIGITAL EQUIPMENT CORP) 12 January 1994 • abstract • • column 7, line 11 - column 8, line 53 * • column 12, line 53 - column 14, line 17 • • column 17, line 22 - column 19, line 53 * ---	1,5-9	
A	US 5 432 926 A (CITRON ANDREW P ET AL) 11 July 1995 * the whole document * -----	1,5-7,9	
			TECHNICAL FIELDS SEARCHED (Int.Cl.6)
			G06F
The present search report has been drawn up for all claims			
Place of search BERLIN		Date of completion of the search 22 August 1997	Examiner Masche, C
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons</p> <p>& : member of the same patent family, corresponding document</p>			

EPO FORM 1503 03.92 (P4/C01)